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TILLBROOK
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10/501129
DT15 Rec'd PCT/PTO 12 JUL 2004
European Patent
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European Patent Office
(International Preliminary Examination Authority)
D-80298 Munich
Germany

Private & Confidential

16 February 2004

REPLY TO WRITTEN OPINION

Sirs

International Application PCT/GB03/000146 {ex GB0201155.9}
'Composite Hinge'

Martin CLIVE-SMITH

Applicant ref: PT79

Our ref: DC306.P03.002

I refer to the Written Opinion of 26 November 2003, and the 3 month term set for reply, and would make the following submission - by way of comment and voluntary claim amendment:

I note that only the following two search outcome cases are applied in relation to novelty of certain claims:

US 5755 472 (Clive-Smith) - Applicant's own collapsible platform base flatrack container with folding endwalls, pivot pin base connection, corner posts and infill panel. A post-housed counterbalance spring and pivot transfer link geometry pre-set vertical corner post and endwall disposition.

US 3765556 (Baer) - collapsible container with concertina-fold longitudinal side walls and corner post base offset pivot configuration bypassing vertical loads in an upright post condition, in favour of a gudgeon pin and trunnion base to floor interlock.

Neither envisage fabricated hinge construction for robust and stiff configuration, without disproportionate material thickness - and attendant weight penalty.

Moreover, fabrication of the subject case allows bespoke bounding flange and intervening web local contour - to contrive a flared profile to bolster post support.

The set of substitute claims presented herewith reflect this distinction - by editorial revision of the present claims.

Favourable re-consideration of the application in the light of the foregoing submission is requested.

Yours sincerely


Chris J Tillbrook

enc: O revised substitute claims

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Claims

1.
A fabricated hinge,
configured for mounting
5 a folding corner post and/or end wall,
upon a platform base (20)
of a collapsible flatrack container (11),
the hinge comprising
an inner hinge portion (32),
10 carried by a pivot pin (19),
captive in a outer hinge portion (21),
in turn secured to the platform base,
and fabricated of multiple discrete elements,
including opposed flanges (33, 34, 35, 36),
15 with an intervening web (37).
2.
A hinge of Claim 1,
with an inner hinge outboard flange
having an outwardly flared upstand,
20 bounding a corresponding flared upper web contour,
to present a greater post mounting section,
3.
A hinge of either preceding claim,
of laminated construction,
25 with a plurality of juxtaposed web plates.
secured (eg welded) together,
and/or between common individual flanges,
or multiple juxtaposed flange portions.
4.
30 A hinge of any preceding claim,
with flanges configured to mate
with corresponding corner post flanges,
by, say, end abutment, overlay, superimposition or mutual inset.
5.
35 A hinge of any preceding claim,
with replaceable / demountable web and/or flanges,
allowing (re-)assembly in different configurations.

6.
A hinge of any preceding claim,
with differential inboard and outboard flange widths.
- 5 7.
A hinge of any preceding claim,
wherein an inner hinge outboard flange is profiled locally,
such as with a cut-out or recess,
to accommodate a hinge locking detent
between inner and outer hinge portions.
- 10 8.
A hinge of any preceding claim,
wherein an inner hinge outboard flange is profiled,
with corresponding web span,
to achieve a waisted overall profile,
15 with superimposed blocks secured outboard thereof,
to define an intervening recess or cut-out
for a travel limit abutment block
between inner and outer hinge portions.
- 20 9.
A hinge of any of preceding claim,
with individual component elements
of diversely fabricated, forged or cast construction.
- 25 10.
A hinge of any of preceding claim,
with differential respective profiles
of inner hinge portion and folding post
- 30 11.
A hinge of any preceding claim,
wherein a joint between hinge and post
incorporates some relative interfit or overlap.
12.
A hinge of any preceding claim,
with a butt joint,
between a hinge top flange and post end.

13.
A hinge of any preceding claim,
combined with post sections
including, 'I' beam, 'U' or 'C' sections,
5 hollow or solid rectangular tubular forms.

14.
A hinge of any of preceding claim,
including 'I' beam, 'U' or 'C' sections,
for inner hinge portion forms.

10 15.
A hinge of any preceding claim,
with an 'I' section inner hinge portion,
fitted within a 'U' or 'C' section outer hinge portion,
upon an inboard pivot axis carried between spaced outer hinge flanges,
15 and an outboard inner hinge portion fitting
within a 'U' or 'C' section throat plate between outer hinge flanges,
an inboard inner hinge flange sitting inboard of the throat,
an inner hinge top portion protruding beyond that throat,
20 with a leading edge abutment profile to engage the throat
to serve as an outer limit for inner hinge and surmounting post disposition.

16.
A hinge, substantially as hereinbefore described,
with reference to, and as shown in, the accompanying drawings.

25 17.
A collapsible flatrack container
with a fabricated hinge of any preceding claim
supporting folding posts and/or end walls
upon a platform deck.

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Moreover, fabrication of the subject case allows bespoke bounding flange and intervening web local contour - to contrive a flared profile to bolster post support.

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

WRITTEN OPINION
(PCT Rule 66)

To:

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Warwick CV34 4HB
GRANDE BRETAGNE

Date of mailing (day/month/year)	26.11.2003
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Applicant's or agent's file reference
DC306.P03.002

REPLY DUE	within 3 month(s) from the above date of mailing
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International application No.
PCT/GB03/00146

International filing date (day/month/year)
16.01.2003

Priority date (day/month/year)
19.01.2002

International Patent Classification (IPC) or both national classification and IPC
B65D88/12

Applicant
CLIVE-SMITH, Martin

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 19.05.2004

Name and mailing address of the international preliminary examining authority:



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Authorized Officer

Lendfers, P

Formalities officer (incl. extension of time limits)
de Santiago Gomez, A
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I. Basis of the opinion

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

Description, Pages

1-9 as originally filed

Claims, Numbers

1-16 as originally filed

Drawings, Sheets

1/7-7/7 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1,2,10,11,14,15
Inventive step (IS)	Claims	
Industrial applicability (IA)	Claims	

2. Citations and explanations**see separate sheet**

1). Present independent claim 1 is drafted in such general terms that each of the documents US-A-5 755 472 (see in particular column 2, lines 28 to 63, and figures 1 and 2) and US-A-3 765 556 (see in particular column 2, line 40, to column 8, line 63, and figures 1 to 8) discloses all the technical features of independent claim 1. Therefore, the subject-matter of independent claim 1 is known (Article 33(2) PCT).

2). Both documents US-A-5 755 472 and US-A-3 765 556 disclose as well the features of dependent claims 2, 10, 11, 14 and 15. Therefore the subject-matter of dependent claims 2, 10, 11, 14 and 15 is also known (Article 33(2) PCT).

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